

### Abstract of the Disclosure

[0062] A pipelined arbitration mechanism allows a routing control decision to be effected for a later packet while a current packet is being transferred. The later packet can be issued a fixed number of cycles after the current request. The mechanism has particular advantages when used with a plurality of functional modules connected to a packet router, whereby a single functional module can generate a current request relating to a current packet and a deferred arbitration request relating to a later packet to be issued a fixed number of cycles after the current request.